Question Number	Answer	Additional guidance	Mark
6(a)	An explanation that includes four of the following points: • water for {hydrolysis reactions / form cytoplasm / solvent / hydration} (1) • (some bacteria require) oxygen for (aerobic) respiration (1) • (suitable/optimum) temperature for {enzyme-controlled / metabolic} reactions to occur (at suitable rate) (1) • (suitable/optimum) pH for {enzyme-controlled / metabolic} reactions to occur (at suitable rate) (1) • named organic molecule and an explanation of why that organic molecule is needed (1)	 ACCEPT (some anaerobic bacteria require) no oxygen for anaerobic respiration ACCEPT (suitable) temperature so enzymes do not denature ACCEPT (suitable) pH so enzymes do not denature e.g. glucose for respiration / lipids to provide fatty acid chains for new cell membrane / proteins to provide amino acids for {protein synthesis / growth}	**(4)**

Question Number	Answer	Additional guidance	Mark
6(b)(i)	A calculation showing the following steps: • calculation of difference in mean area of ulcer (1) • calculation of percentage decrease (1)	Example of calculation $(802.71-95.71) = 707$ $\frac{(802.71-95.71)}{802.71} \times 100 = 88 / 88.077 / 88.08 / 88.1$ (%) Correct answer with no working shown scores full marks	**(2)**